UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,778	03/08/2001	Francois Rey	11343.030001	6588

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EXAMINER
RAMAN, USHA

ART UNIT	PAPER NUMBER
2424	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>17 November 2009</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>48-64</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>48-62</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed November 17, 2009 have been fully considered but they

are not persuasive..

Applicant argues (see Remarks, page 10) that, "Menand does not relate to

providing a decoder with characteristic information about applications carried by a

plurality of services so that decoder can make decisions regarding what to do with

certain applications when a user switches between services". Examiner respectfully

disagrees.   Menand discloses maintaining a directory module (i.e. characteristics)

that describe code and data modules making up an interactive application program

component are accessed (col. 1, lines 62-67) describing application program

components that are accessible by unique service identifiers. Accordingly the

service identifiers uniquely identifying the components are mapped to the

characteristics of the at least one component. Furthermore, application components

maybe used for more than one programs (col. 1, lines 33-34), wherein the directory

module determines components that need to be allocated, maintained, deleted (col.

2, lines 6-25).

For these reasons the rejection is maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 48-49, 51-57, 59-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over DVB Document A038, "Specification for Service Information (SI) in Digital Video Broadcasting (DVB) Systems" published in March 1998 in view of Menand et al. (US Pat. 5,539,920).

With regards to claims 48 and 56, the DVB Specification discloses a method of transmission of application data in a plurality of services (see fig. 1) in a digital transport stream. In particular a service is identified as a sequence of programs, wherein the programs are a concatenation of one or more events. Accordingly each service (reading on claimed "service") carries at least one program (reading on claimed "application data"). See DVB SI Specification, pages 5-6. A BAT (i.e. single application data table) further provides information regarding a collection of services transmitted on a bouquet. See pages 5 and 8. The DVB Specification further incorporates in by reference ETR 211 "Digital Video Broadcasting (DVB): Guidelines on implementation and usage of Service Information (SI)". The DVB Guidelines discloses that the BAT includes a service list descriptor (see page 19, 4.2.2.2.1), comprising a list of applications carried by each of the plurality of services. The DVB specification is silent on the at least one application being an executable interactive application configured to execute on a decoder and comprising an application description part comprising a mapping of an application identifier uniquely identifying at least one application to characteristics o the at least one application.

In an analogous art, Menand discloses a broadcaster transmitting interactive application program (AVI) with a television signal (col. 1 lines 14-18, lines 45-50), the interactive application configured to execute on a decoder (col. 1 lines 19-24). Menand further mapping components of AVI (i.e. mapping applications of a service) with service identifiers of packet services carrying those components, so that the components maybe extracted from packet stream (col. 1, lines 45-50). Furthermore, from the interactive application program component (which is extracted based on the service identifier), a directory module (i.e. characteristics) that describe code and data modules making up an interactive application program component are accessed (col. 1, lines 62-67). Therefore, the service identifiers uniquely identifying the components are mapped to the characteristics of the at least one component. Menand further notes that some components (i.e. applications) may be used for more than one AVI program (i.e. services), wherein an AVI program comprise various components such as audio/video/interactive data (col. 1, lines 33-34, lines 28-31). Furthermore, it is note that a user may switch a channel. Therefore, Menand further discloses wherein user may switch from a first service comprising a first application and second application to a second service comprising the first application and a third application, wherein the first application reads on the component used by more than one AVI program. When a user accesses an interactive application program information component (e.g. via changing channel), characteristics of the components are evaluated to determine wither to maintain,

delete or download one or more of the first, second and third applications (col. 2, lines 6-25).

Accordingly it would have been obvious to one of ordinary skill in the art to modify the system in view of Menand by further mapping the service identifiers to a directory module describing code/data modules making up that service so that pertinent modules maybe extracted based on the service identifier, wherein the directory modules comprise characteristics that are evaluated whether to maintain, delete or download one or more of the first, second and third applications.

With further regards to claim 56, the DVB SI specification further discloses that the data is transmitted over a physical medium from an emitting point. See page 5. Accordingly the emitting point reads on the claimed "means for transmitting a transport stream".

With regards to claims 49, and 57, the application data table (BAT) is transported in a transport packet having a predetermined packet ID value (0x0011) associated with the presence of an application data table within the packet. See page 11.

With regards to claims 51, and 59, the DVB SI specification further discloses a program map table (PMT) gives access to all applications carried by this service, the program map table itself comprising information (program_number, see page 54) regarding at least one application carried by this service. See page 8.

With regards to claims 52, and 60, the DVB Guideline notes that there maybe one or more bouquets (see page 12), wherein the BAT describes the services provided for bouquet identified by bouquet_id (see DVB SI Specification: page 16).

Accordingly in the scenario where there are more than one bouquets, each bouquet

identified by a bouquet_id has a BAT. This reads on the claimed, "plurality of

application data tables, each application data table containing information regarding

applications contained within a bouquet of services".

With regards to claims 53, and 61, the DVB SI specification discloses that the

BAT may be a table comprising a plurality of sub tables (see DVB SI specification

pages 6, 15). The BAT therefore is associated with one of table and a section

having one of a characteristic table ID and a characteristic table ID extension value

(see DVB SI specification pages 6 and 10).

With regards to claim 54, the method further comprises receiving the application

data in a digital television system (see DVB SI specification page 4).

With regards to claim 55, and, 62, the method further comprises wherein the

digital transport stream conforms to the MPEG standard (see DVB SI specification

page 6).

With regards to claim 63, the DVB Specification discloses a method of

transmission of application data in a plurality of services (see fig. 1) in a digital

transport stream. In particular a service is identified as a sequence of programs,

wherein the programs are a concatenation of one or more events. Accordingly each

service (reading on claimed "service") carries at least one program (reading on

claimed "application data"). See DVB SI Specification, pages 5-6. A BAT further

provides information regarding a collection of services transmitted on a bouquet.

See pages 5 and 8. The DVB Specification further incorporates in by reference ETR

211 "Digital Video Broadcasting (DVB): Guidelines on implementation and usage of

Service Information (SI)". The DVB Guidelines discloses that the BAT includes a

service list descriptor (see page 19, 4.2.2.2.1), comprising a list of applications

carried by each of the plurality of services. The DVB specification is silent on the at

least one application being an executable interactive application configured to

execute on a decoder and comprising an application description part comprising a

mapping of an application identifier uniquely identifying at least one application to

characteristics o the at least one application.

In an analogous art, Menand discloses a broadcaster transmitting interactive

application program (AVI) with a television signal (col. 1 lines 14-18, lines 45-50), the

interactive application configured to execute on a decoder (col. 1 lines 19-24).

Menand further mapping components of AVI (i.e. mapping applications of a service)

with service identifiers of packet services carrying those components, so that the

components maybe extracted from packet stream (col. 1, lines 45-50). Furthermore,

from the interactive application program component (which is extracted based on the

service identifier), a directory module (i.e. characteristics) that describe code and

data modules making up an interactive application program component are

accessed (col. 1, lines 62-67). Therefore, the service identifiers uniquely identifying

the components are mapped to the characteristics of the at least one component.

Menand further notes that some components (i.e. applications) may be used for

more than one AVI program (i.e. services), wherein an AVI program comprise

various components such as audio/video/interactive data (col. 1, lines 33-34, lines

28-31). Furthermore, it is note that a user may switch a channel. Therefore, Menand

further discloses wherein user may switch from a first service comprising a first

application and second application to a second service comprising the first

application and a third application, wherein the first application reads on the

component used by more than one AVI program. When a user accesses an

interactive application program information component (e.g. via changing channel),

characteristics of the components are evaluated to determine wither to maintain,

delete or download one or more of the first, second and third applications (col. 2,

lines 6-25).

      Accordingly it would have been obvious to one of ordinary skill in the art to

modify the system in view of Menand by further mapping the service identifiers to a

directory module describing code/data modules making up that service so that

pertinent modules maybe extracted based on the service identifier, wherein the

directory modules comprise characteristics that are evaluated whether to maintain,

delete or download one or more of the first, second and third applications.

4.   Claims 50, 58, and 64, are rejected under 35 U.S.C. 103(a) as being unpatentable

    over DVB Document A038, "Specification for Service Information (SI) in Digital Video

    Broadcasting (DVB) Systems" published in March 1998 in view of Menand et al. (US

    Pat. 5,539,920) as applied to claims 48, 56, and 63, respectively, above and further

    in view of Akins (US Pat. 6,526,508).

With regards to claims 50, 58, and 64, the modified system does not disclose on the step of electronically signing the application data table so as to permit a decoder to verify an application data table as originating from a known operator.

Akins teaches the need for additional security measurements in downloading service related information to ensure that a received data is received from legitimate source. See column 5, lines 41-45 and lines 56-59.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system in view of Akins' teachings to provide authentication means with the service information tables so that the receiver can authenticate the data prior to downloading it.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the mailing date of this final

action.

6. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to USHA RAMAN whose telephone number is

(571)272-7380. The examiner can normally be reached on Mon-Fri: 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The

fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like

assistance from a USPTO Customer Service Representative or access to the

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-

272-1000.

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